

AMENDMENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-8. (Canceled)

9. (Currently Amended) A method for creating a plurality of nucleic acids comprising the steps of:

- (a) annealing a plurality of a defined first primer nucleic acid to a plurality of at least one first single stranded template nucleic acid,
- (b) performing a first extension by extending the first primer nucleic acid employing the first template nucleic acid in the presence of at least one dideoxynucleotide or a dideoxynucleotide comprising a nucleotide analog, wherein the dideoxynucleotide or dideoxynucleotide comprising a nucleotide analog is incorporated into the extended nucleic acid, to form a plurality of first extended nucleic acids having essentially identical 5' ends and variable 3' ends,
- (c) denaturing the first extended nucleic acids from the first template nucleic acid,
- (d) modifying or removing the dideoxynucleotide or dideoxynucleotide comprising a nucleotide analog from the first extended nucleic acids,
- (~~[[d]]~~e) annealing the first extended nucleic acids to a plurality of at least a second single stranded template nucleic acid whose sequence is not identical to the first template nucleic acid, and
- (~~[[e]]~~f) performing a second extension by extending the extended nucleic acid employing the second template nucleic acid to form a plurality of twice extended nucleic acids having essentially identical 5' ends~~[[,]]~~.

- ~~(f) — adding at least one dideoxynucleotide or a dideoxynucleotide analog before or during at least one of the first extension or the second extension, wherein said dideoxynucleotide or dideoxynucleotide analog is incorporated into said first or second extended nucleic acid and~~
- ~~(g) — modifying or removing the dideoxynucleotide or dideoxynucleotide analog from the extended nucleic acid, if a further extension is to be performed.~~

10-11. (Canceled)

12. (Currently Amended) The method of claim ~~[[9]]~~16, further comprising:

- (a) modifying or removing the dideoxynucleotide or dideoxynucleotide comprising a nucleotide analog from the twice extended nucleic acids,
- ~~[[a]]b~~ denaturing the twice extended nucleic acid from the second template nucleic acid
- ~~[[b]]c~~ annealing the twice extended nucleic acid to a third template nucleic acid, and
- ~~[[c]]d~~ performing a third extension by extending the twice extended nucleic acid employing the third template nucleic acid to form a thrice extended nucleic acid.

13. (Currently Amended) The method of claim 12, further comprising adding at least one dideoxynucleotide or dideoxynucleotide comprising a nucleotide analog before or during the third extension.

14. (Previously Presented) The method of claim 12, further comprising at least one additional series of denaturing from a template, annealing to a further template, and performing of extension.

15. (Previously Presented) The method of claim 14, further defined as comprising between one and five hundred additional series of denaturing from a template, annealing to a further template, and performing of extension.
16. (Currently Amended) The method of claim ~~12, further comprising adding~~ 9, wherein the second extension is performed in the presence of at least one dideoxynucleotide or dideoxynucleotide analog, wherein the dideoxynucleotide or dideoxynucleotide comprising a nucleotide analog is incorporated into the extended nucleic acid, to form a plurality of twice extended nucleic acids having essentially identical 5' ends and variable 3' ends~~before or during each extension.~~
17. (Canceled)
18. (Currently Amended) The method of claim 9, wherein said dideoxynucleotide or dideoxynucleotide comprising a nucleotide analog is removed by at least one exonuclease.
19. (Previously Presented) The method of claim 9, wherein said first single stranded template nucleic acid or said second single stranded template nucleic acid vary in size, sequence, resistance to cleavage or resistance to exonuclease degradation.
20. (Canceled)
21. (Canceled)
22. (Currently Amended) The method of claim ~~[[21]]~~9, wherein said plurality of first extended nucleic acids comprises an extension ladder.

23. (Currently Amended) The method of claim [[21]], wherein said plurality of first extended nucleic acids vary in length, sequence, resistance to cleavage or resistance to exonuclease degradation.
24. (Currently Amended) The method of claim 23, wherein said plurality of first extended nucleic acids comprises nucleic acids of different sequence.
25. (Previously Amended) The method of claim 24, wherein said different sequence varies by one nucleotide.
26. (Currently Amended) The method of claim 23, wherein said plurality of first extended nucleic acids comprise different lengths.
27. (Previously Presented) The method of claim 26, wherein said different lengths comprise one nucleotide increments.
28. (Previously Presented) The method of claim 27, wherein said different lengths comprise more than one nucleotide increments.
29. (Previously Presented) The method of claim 9, wherein the extended nucleic acid comprises at least one partly double stranded nucleic acid or at least one fully double stranded nucleic acid.
30. (Canceled)
31. (Previously Presented) The method of claim 9, wherein said defined first primer nucleic acid is resistant to cleavage or exonuclease digestion.
32. (Previously Presented) The method of claim 9, wherein said defined first primer nucleic acid is a plurality of primers.

33. (Previously Presented) The method of claim 32, wherein said plurality of primers vary in length, sequence, resistance to cleavage or resistance to exonuclease degradation.
34. (Previously Presented) The method of claim 9, wherein the first extended nucleic acid comprises the primer nucleic acid.
35. (Previously Presented) The method of claim 9, wherein said first or second extended nucleic acid is a recombinant, mutagenized or chimeric nucleic acid.
36. (Previously Presented) The method of claim 9, wherein said at least one first single stranded template nucleic acid or said at least one second single stranded template nucleic acid is a plurality of template nucleic acids.
37. (Previously Presented) The method of claim 9, further comprising the addition of at least one length-altering agent.
38. (Previously Presented) The method of claim 37, wherein the length-altering agent comprises a nucleotide, a nucleotide derivative, a nucleotide analog, a chemical treatment or a combination thereof.
39. (Previously Presented) The method of claim 38, wherein said length-altering agent comprises a nucleotide incorporated into said first or second extended nucleic acid.
40. (Previously Presented) The method of claim 39, wherein said nucleotide comprises at least one ribonucleotide.
41. (Previously Presented) The method of claim 40, wherein said length-altering agent further comprises treatment with an alkaline condition or a ribonuclease.

42. (Previously Presented) The method of claim 40, wherein said length-altering agent further comprises treatment with alkaline phosphatase and an exonuclease.
43. (Previously Presented) The method of claim 38, wherein said length-altering agent comprises a nucleotide derivative incorporated into said extended nucleic acid.
44. (Previously Presented) The method of claim 38, wherein the length-altering agent comprises a nucleotide analog incorporated into said extended nucleic acid.
45. (Previously Presented) The method of claim 44, wherein said nucleotide analog comprises at least one α -phosphorothioate nucleotide.
46. (Previously Presented) The method of claim 45, wherein said length-altering agent further comprises alkylation of said extended nucleic acid.
47. (Previously Presented) The method of claim 38, wherein the length-altering agent comprises a chemical treatment of said extended nucleic acid.
- 48-57. (Canceled)